

Notice of Allowability

Application No.

10/676,579

Examiner

Marc S. Zimmer

Applicant(s)

LOWERY, MICHAEL D.

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/16/05 and the interview conducted 11/04/05.
2. ☒ The allowed claim(s) is/are 2-5,7,8,10-15,17-19,21-27 and 29-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

MARC S. ZIMMER
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Scott Catlin on November 4, 2005.

The application has been amended as follows:

Please replace amended claim 4 with,

4. An intraocular lens for surgical implantation into a mammalian eye having a deformable lens body including an optically clear material comprising:
 - a silicone polymer; and
 - a silica reinforcer present in an amount effective to reinforce said polymer, the silica reinforcer including at least one aryl group effective to increase the refractive index of the silica reinforcer relative to a similar silica reinforcer without at least one aryl group, wherein the silica reinforcer has a refractive index greater than about 1.50.

Please cancel claim 28.

Please replace new claim 29 with,

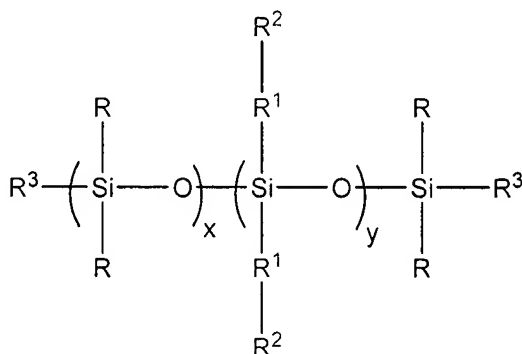
29. An intraocular lens for surgical implantation into a mammalian eye having a deformable lens body including an optically clear material comprising:
 - a silicone polymer; and
 - a silica reinforcer present in an amount effective to reinforce said polymer, the silica reinforcer including at least one aryl group effective to increase the refractive index of the silica reinforcer relative to a similar silica reinforcer without at least one aryl group, wherein the silica reinforcer has a refractive index greater than about 1.47; and

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wherein the silicone polymer has a refractive index, and wherein the refractive index of the silica reinforcer is within about 0.015 of the refractive index of the silicone polymer.

Please add the following new claims.

30. The intraocular lens of claim 29 wherein the silicone polymer includes aryl groups.
31. The intraocular lens of claim 29 wherein the silicone polymer is a crosslinked polysiloxane.
32. The intraocular lens of claim 29 wherein the silicone polymer is a crosslinked copolymer of (1) at least one polysiloxane including aryl groups and (2) at least one crosslinker component.
33. The intraocular lens of claim 30 wherein said aryl groups are selected from the class consisting of phenyl, substituted phenyl groups, styryl, substituted styryl groups and mixtures thereof.
34. The intraocular lens of claim 29 wherein the silica reinforcer includes covalently bonded silicone-containing moieties including at least one aryl group.
35. The intraocular lens of claim 32 wherein the at least one polysiloxane has the formula:



wherein each R is independently selected from the group consisting of alkyl radicals, substituted alkyl radicals, cycloalkyl radicals, substituted cycloalkyl radicals, aryl radicals and substituted aryl radicals, each R¹ is independently selected from the group consisting of divalent hydrocarbon radicals and substituted divalent hydrocarbon

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radicals, each R^2 is independently selected from the group consisting of aryl radicals and substituted aryl radicals, each R^3 is independently selected from the group consisting of monovalent hydrocarbon radicals having a carbon-carbon multiple bond and substituted hydrocarbon radicals having a carbon-carbon multiple bond, x is an integer in a range of 0 to about 500, and y is an integer in a range of about 6 to about 500.

Applicant had been advised that the amendment to claim 4 was, in the Examiner's estimation, inadequate as a means to render the claims directed to an intraocular lens allowable over Polmanteer. The Examiner explained that, where the only patentable difference was to be in the acceptable range associated with a property and the ranges were not coincident with one another but abutted each other, the claimed subject matter was unobvious. Indeed, "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected [the claimed product and a product disclosed in the prior art] to have the same properties." *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). It was, therefore, the Examiner's position that the reference rendered obvious those embodiments of Applicant's invention where the refractive index of the filler was only slightly larger than 1.46 and including 1.47.

On the other hand, it was submitted to Applicant that claim 4 and the claims dependent therefrom could be made allowable were Applicant willing to amend the lower limit to 1.5 for which there is express support in the original disclosure. (The Examiner explained that, insofar as the entire refractive index range for silica fillers,

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treated and untreated alike, appeared to be no more than approximately .3 units based on a survey of the art, a 0.04 difference would appear to be significant. That is, the employment of a filler having a refractive index of 1.50, .04 higher than the highest refractive index recited by the reference, would result in a measurable improvement in the properties of the composition whereas this would not necessarily seem to be true if a filler having a refractive index of 1.46 was replaced with one having an R.I. of 1.47, a difference of only .01 (and in, fact, claim 4 would encompass fillers having an even smaller difference in refractive index than .01- it is claim 28 that requires the refractive index to be greater than about 1.47.)

Claim 28 was canceled because it was no longer further limiting of claim 4.

Applicant's has authorized charging deposit account number 502317 for 2 additional claims.

During the interview, Applicant had also inquired as to the patentability of new claim 29 were it to be written in independent form. The Examiner expressed concerns that this limitation might be inherently satisfied for some of the compositions embraced by the reference if the refractive index of the filler was 1.46 or less. It was proposed by the Examiner that the claim might be patentable if Applicant were to stipulate that the refractive index were 1.47 or greater *and* the refractive indices of polymer and filler were matched to the extent defined by claim 29. Applicant indicated they were amenable to the Examiner's suggested. Further review of Polmanteer convinced the Examiner that

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claim 29, set forth above, would be patentable over the prior art because there reference does, in fact, seem to indicate that close matching of the indices was undesirable.

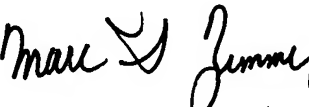
An updated survey of the prior art did not yield any references more germane than those made of record during the prosecution of this case. Accordingly, claims 2-5, 7-8, 10-15, 17-19, and 21-35 are considered allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 4, 2005


MARC S. ZIMMER
PRIMARY EXAMINER